

SEQUENCE LISTING

<110> Hodge, Martin R.

<120> Novel IL-9/IL-2 Receptor-Like Molecules
and Uses Thereof

<130> 5800-17A

<150> US 09/313,913

<151> 1999-05-18

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<212> DNA

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Met Pro Arg

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Cys Pro Asp Leu Val Cys Tyr Thr Asp Tyr Leu Gln Thr Val Ile Cys	
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Ile Leu Glu Met Trp Asn Leu His Pro Ser Thr Leu Thr Leu Thr Trp	
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Gln Asp Gln Tyr Glu Glu Leu Lys Asp Glu Ala Thr Ser Cys Ser Leu	
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Tyr	Met	Leu	Lys	Gly	Lys	Leu	Gln	Tyr	Glu	Leu	Gln	Tyr	Arg	Asn	Arg	
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Ser	Arg	Ser	Val	Ser	Leu	Leu	Pro	Leu	Glu	Phe	Arg	Lys	Asp	Ser	Ser	
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Glu	Glu	Leu	Lys	Glu	Gly	Trp	Asn	Pro	His	Leu	Leu	Leu	Leu	Leu	Leu	
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Leu	Val	Ile	Val	Phe	Ile	Pro	Ala	Phe	Trp	Ser	Leu	Lys	Thr	His	Pro	
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Leu	Trp	Arg	Leu	Trp	Lys	Lys	Ile	Trp	Ala	Val	Pro	Ser	Pro	Glu	Arg	
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ttc	ttc	atg	ccc	ctg	tac	aag	ggc	tgc	agc	gga	gac	ttc	aag	aaa	tgg	1221
Phe	Phe	Met	Pro	Leu	Tyr	Lys	Gly	Cys	Ser	Gly	Asp	Phe	Lys	Lys	Trp	
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gtg	ggt	gca	ccc	ttc	act	ggc	tcc	agc	ctg	gag	ctg	gga	ccc	tgg	agc	1269
Val	Gly	Ala	Pro	Phe	Thr	Gly	Ser	Ser	Leu	Glu	Leu	Gly	Pro	Trp	Ser	
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Pro	Glu	Val	Pro	Ser	Thr	Leu	Glu	Val	Tyr	Ser	Cys	His	Pro	Pro	Arg	

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<212> PRT

<213> Homo sapiens IL-2/IL-9 Receptor Like

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Leu Thr Trp Gln Asp Gln Tyr Glu Glu Leu Lys Asp Glu Ala Thr Ser
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Cys Ser Leu His Arg Ser Ala His Asn Ala Thr His Ala Thr Tyr Thr
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Cys His Met Asp Val Phe His Phe Met Ala Asp Asp Ile Phe Ser Val
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Asn Ile Thr Asp Gln Ser Gly Asn Tyr Ser Gln Glu Cys Gly Ser Phe
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Leu Leu Ala Glu Ser Ile Lys Pro Ala Pro Pro Phe Asn Val Thr Val
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Thr Phe Ser Gly Gln Tyr Asn Ile Ser Trp Arg Ser Asp Tyr Glu Asp
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Pro Ala Phe Tyr Met Leu Lys Gly Lys Leu Gln Tyr Glu Leu Gln Tyr
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Arg Asn Arg Gly Asp Pro Trp Ala Val Ser Pro Arg Arg Lys Leu Ile
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Ser Val Asp Ser Arg Ser Val Ser Leu Leu Pro Leu Glu Phe Arg Lys
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Ser Tyr Gln Gly Thr Trp Ser Glu Trp Ser Asp Pro Val Ile Phe Gln
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Thr Gln Ser Glu Glu Leu Lys Glu Gly Trp Asn Pro His Leu Leu Leu
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Pro Glu Arg Phe Phe Met Pro Leu Tyr Lys Gly Cys Ser Gly Asp Phe
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Lys Lys Trp Val Gly Ala Pro Phe Thr Gly Ser Ser Leu Glu Leu Gly
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Pro Trp Ser Pro Glu Val Pro Ser Thr Leu Glu Val Tyr Ser Cys His
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Cys	Tyr	Thr	Asp	Tyr	Leu	Trp	Thr	Ile	Thr	Cys	Val	Leu	Glu	Thr	Arg	
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Leu Ser Asp Glu Val Phe Ile Val Asn Val Thr Asp Gln Ser Gly Asn	
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Ser Trp Asp Ser Ala Tyr Asp Glu Pro Ser Asn Tyr Val Leu Arg Gly	
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Lys Leu Gln Tyr Glu Leu Gln Tyr Arg Asn Leu Arg Asp Pro Tyr Ala	
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Val Arg Pro Val Thr Lys Leu Ile Ser Val Asp Ser Arg Asn Val Ser	
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Arg Ala Ala Pro Gln Pro Gly Thr Ser Phe Arg Gly Thr Trp Ser Glu	
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Trp Ser Asp Pro Val Ile Phe Gln Thr Gln Ala Gly Glu Pro Glu Ala	
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Lys Ile Trp Ala Pro Val Pro Thr Pro Glu Ser Phe Phe Gln Pro Leu	
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Thr Ala Ser Ser Ile Glu Leu Val Pro Gln Ser Ser Thr Thr Thr Ser	
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Ala Leu His Leu Ser Leu Tyr Pro Ala Lys Glu Lys Lys Phe Pro Gly	
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Trp Thr Ala Asp Pro Thr Trp Arg Thr Gly Ser Pro Gly Gly Gly Ser	
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Glu Ser Glu Ala Gly Ser Pro Pro Gly Leu Asp Met Asp Thr Phe Asp	
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Ser Gly Phe Ala Gly Ser Asp Cys Gly Ser Pro Val Glu Thr Asp Glu	
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 <213> Mus musculus

<400> 4

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 Cys Ser Leu His Lys Ser Gly His Asn Thr Thr His Ile Trp Tyr Thr
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 Asn Val Thr Asp Gln Ser Gly Asn Asn Ser Gln Glu Cys Gly Ser Phe
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 Val Leu Ala Glu Ser Ile Lys Pro Ala Pro Pro Leu Asn Val Thr Val
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 Ala Phe Ser Gly Arg Tyr Asp Ile Ser Trp Asp Ser Ala Tyr Asp Glu
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 Pro Ser Asn Tyr Val Leu Arg Gly Lys Leu Gln Tyr Glu Leu Gln Tyr
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 Arg Asn Leu Arg Asp Pro Tyr Ala Val Arg Pro Val Thr Lys Leu Ile
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 Ser Val Asp Ser Arg Asn Val Ser Leu Leu Pro Glu Glu Phe His Lys
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 Asp Ser Ser Tyr Gln Leu Gln Met Arg Ala Ala Pro Gln Pro Gly Thr
 195 200 205
 Ser Phe Arg Gly Thr Trp Ser Glu Trp Ser Asp Pro Val Ile Phe Gln
 210 215 220
 Thr Gln Ala Gly Glu Pro Glu Ala Gly Trp Asp Pro His Met Leu Leu
 225 230 235 240
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<213> Mus musculus

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Pro	Ser	Gly	His	Ser	Gln	Ala	Ser	Cys	Phe	Thr	Asn	Gln	Gly	Tyr	Phe
		355				360						365			
Phe	Phe	His	Leu	Pro	Asn	Ala	Leu	Glu	Ile	Glu	Ser	Cys	Gln	Val	Tyr
	370					375					380				
Phe	Thr	Tyr	Asp	Pro	Cys	Val	Glu	Glu	Glu	Val	Glu	Glu	Asp	Gly	Ser
385					390					395					400
Arg	Leu	Pro	Glu	Gly	Ser	Pro	His	Pro	Pro	Leu	Leu	Pro	Leu	Ala	Gly
				405				410						415	
Glu	Gln	Asp	Asp	Tyr	Cys	Ala	Phe	Pro	Pro	Arg	Asp	Asp	Leu	Leu	Leu
			420					425					430		

Phe	Ser	Pro	Ser	Leu	Ser	Thr	Pro	Asn	Thr	Ala	Tyr	Gly	Gly	Ser	Arg
		435					440					445			
Ala	Pro	Glu	Glu	Arg	Ser	Pro	Leu	Ser	Leu	His	Glu	Gly	Leu	Pro	Ser
	450					455					460				
Leu	Ala	Ser	Arg	Asp	Leu	Met	Gly	Leu	Gln	Arg	Pro	Leu	Glu	Arg	Met
465					470					475					480
Pro	Glu	Gly	Asp	Gly	Glu	Gly	Leu	Ser	Ala	Asn	Ser	Ser	Gly	Glu	Gln
			485						490					495	
Ala	Ser	Val	Pro	Glu	Gly	Asn	Leu	His	Gly	Gln	Asp	Gln	Asp	Arg	Gly
			500					505					510		
Gln	Gly	Pro	Ile	Leu	Thr	Leu	Asn	Thr	Asp	Ala	Tyr	Leu	Ser	Leu	Gln
	515						520					525			
Glu	Leu	Gln	Ala	Gln	Asp	Ser	Val	His	Leu	Ile					
	530					535									

<210> 7
 <211> 522
 <212> PRT
 <213> Homo sapiens

<400> 7

Met	Gly	Leu	Gly	Arg	Cys	Ile	Trp	Glu	Gly	Trp	Thr	Leu	Glu	Ser	Glu
1				5					10					15	
Ala	Leu	Arg	Arg	Asp	Met	Gly	Thr	Trp	Leu	Leu	Ala	Cys	Ile	Cys	Ile
			20					25					30		
Cys	Thr	Cys	Val	Cys	Leu	Gly	Val	Ser	Val	Thr	Gly	Glu	Gly	Gln	Gly
		35				40						45			
Pro	Arg	Ser	Arg	Thr	Phe	Thr	Cys	Leu	Thr	Asn	Asn	Ile	Leu	Arg	Ile
	50					55					60				
Asp	Cys	His	Trp	Ser	Ala	Pro	Glu	Leu	Gly	Gln	Gly	Ser	Ser	Pro	Trp
65					70				75						80
Leu	Leu	Phe	Thr	Ser	Asn	Gln	Ala	Pro	Gly	Gly	Thr	His	Lys	Cys	Ile
				85					90					95	
Leu	Arg	Gly	Ser	Glu	Cys	Thr	Val	Val	Leu	Pro	Pro	Glu	Ala	Val	Leu
			100					105					110		
Val	Pro	Ser	Asp	Asn	Phe	Thr	Ile	Thr	Phe	His	His	Cys	Met	Ser	Gly
	115						120					125			
Arg	Glu	Gln	Val	Ser	Leu	Val	Asp	Pro	Glu	Tyr	Leu	Pro	Arg	Arg	His
	130					135					140				
Val	Lys	Leu	Asp	Pro	Pro	Ser	Asp	Leu	Gln	Ser	Asn	Ile	Ser	Ser	Gly
145					150					155					160
His	Cys	Ile	Leu	Thr	Trp	Ser	Ile	Ser	Pro	Ala	Leu	Glu	Pro	Met	Thr
			165					170						175	
Thr	Leu	Leu	Ser	Tyr	Glu	Leu	Ala	Phe	Lys	Lys	Gln	Glu	Glu	Ala	Trp
			180					185						190	
Glu	Gln	Ala	Gln	His	Arg	Asp	His	Ile	Val	Gly	Val	Thr	Trp	Leu	Ile
		195					200					205			
Leu	Glu	Ala	Phe	Glu	Leu	Asp	Pro	Gly	Phe	Ile	His	Glu	Ala	Arg	Leu
	210					215					220				
Arg	Val	Gln	Met	Ala	Thr	Leu	Glu	Asp	Asp	Val	Val	Glu	Glu	Glu	Arg
225					230				235						240
Tyr	Thr	Gly	Gln	Trp	Ser	Glu	Trp	Ser	Gln	Pro	Val	Cys	Phe	Gln	Ala
			245						250					255	
Pro	Gln	Arg	Gln	Gly	Pro	Leu	Ile	Pro	Pro	Trp	Gly	Trp	Pro	Gly	Asn
			260					265					270		
Thr	Leu	Val	Ala	Val	Ser	Ile	Phe	Leu	Leu	Leu	Thr	Gly	Pro	Thr	Tyr
		275					280					285			

Leu	Leu	Phe	Lys	Leu	Ser	Pro	Arg	Val	Lys	Arg	Ile	Phe	Tyr	Gln	Asn
290						295					300				
Val	Pro	Ser	Pro	Ala	Met	Phe	Phe	Gln	Pro	Leu	Tyr	Ser	Val	His	Asn
305					310					315					320
Gly	Asn	Phe	Gln	Thr	Trp	Met	Gly	Ala	His	Arg	Ala	Gly	Val	Leu	Leu
				325					330					335	
Ser	Gln	Asp	Cys	Ala	Gly	Thr	Pro	Gln	Gly	Ala	Leu	Glu	Pro	Cys	Val
			340					345					350		
Gln	Glu	Ala	Thr	Ala	Leu	Leu	Thr	Cys	Gly	Pro	Ala	Arg	Pro	Trp	Lys
		355					360					365			
Ser	Val	Ala	Leu	Glu	Glu	Glu	Gln	Glu	Gly	Pro	Gly	Thr	Arg	Leu	Pro
	370					375					380				
Gly	Asn	Leu	Ser	Ser	Glu	Asp	Val	Leu	Pro	Ala	Gly	Cys	Thr	Glu	Trp
385					390					395					400
Arg	Val	Gln	Thr	Leu	Ala	Tyr	Leu	Pro	Gln	Glu	Asp	Trp	Ala	Pro	Thr
				405					410					415	
Ser	Leu	Thr	Arg	Pro	Ala	Pro	Pro	Asp	Ser	Glu	Gly	Ser	Arg	Ser	Ser
			420					425					430		
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Asn	Asn	Asn	Asn	Tyr	Cys	Ala	Leu	Gly
		435					440					445			
Cys	Tyr	Gly	Gly	Trp	His	Leu	Ser	Ala	Leu	Pro	Gly	Asn	Thr	Gln	Ser
	450					455					460				
Ser	Gly	Pro	Ile	Pro	Ala	Leu	Ala	Cys	Gly	Leu	Ser	Cys	Asp	His	Gln
465					470					475					480
Gly	Leu	Glu	Thr	Gln	Gln	Gly	Val	Ala	Trp	Val	Leu	Ala	Gly	His	Cys
				485					490					495	
Gln	Arg	Pro	Gly	Leu	His	Glu	Asp	Leu	Gln	Gly	Met	Leu	Leu	Pro	Ser
			500					505					510		
Val	Leu	Ser	Lys	Ala	Arg	Ser	Trp	Thr	Phe						
		515					520								

<210> 8
 <211> 468
 <212> PRT
 <213> Mus musculus

<400> 8

Met	Ala	Leu	Gly	Arg	Cys	Ile	Ala	Glu	Gly	Trp	Thr	Leu	Glu	Arg	Val
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Ala	Val	Lys	Gln	Val	Ser	Trp	Phe	Leu	Ile	Tyr	Ser	Trp	Val	Cys	Ser
			20					25					30		
Gly	Val	Cys	Arg	Gly	Val	Ser	Val	Pro	Glu	Gln	Gly	Gly	Gly	Gly	Gln
		35				40						45			
Lys	Ala	Gly	Ala	Phe	Thr	Cys	Leu	Ser	Asn	Ser	Ile	Tyr	Arg	Ile	Asp
	50					55					60				
Cys	His	Trp	Ser	Ala	Pro	Glu	Leu	Gly	Gln	Glu	Ser	Arg	Ala	Trp	Leu
65					70					75					80
Leu	Phe	Thr	Ser	Asn	Gln	Val	Thr	Glu	Ile	Lys	His	Lys	Cys	Thr	Phe
				85					90					95	
Trp	Asp	Ser	Met	Cys	Thr	Leu	Val	Leu	Pro	Lys	Glu	Glu	Val	Phe	Leu
			100					105					110		
Pro	Phe	Asp	Asn	Phe	Thr	Ile	Thr	Leu	His	Arg	Cys	Ile	Met	Gly	Gln
		115					120						125		
Glu	Gln	Val	Ser	Leu	Val	Asp	Ser	Gln	Tyr	Leu	Pro	Arg	Arg	His	Ile
	130					135					140				
Lys	Leu	Asp	Pro	Pro	Ser	Asp	Leu	Gln	Ser	Asn	Val	Ser	Ser	Gly	Arg
145					150					155					160

Cys	Val	Leu	Thr	Trp	Gly	Ile	Asn	Leu	Ala	Leu	Glu	Pro	Leu	Ile	Thr	
				165					170					175		
Ser	Leu	Ser	Tyr	Glu	Leu	Ala	Phe	Lys	Arg	Gln	Glu	Glu	Ala	Trp	Glu	
			180					185					190			
Ala	Arg	His	Lys	Asp	Arg	Ile	Val	Gly	Val	Thr	Trp	Leu	Ile	Leu	Glu	
		195					200					205				
Ala	Val	Glu	Leu	Asn	Pro	Gly	Ser	Ile	Tyr	Glu	Ala	Arg	Leu	Arg	Val	
	210					215					220					
Gln	Met	Thr	Leu	Glu	Ser	Tyr	Glu	Asp	Lys	Thr	Glu	Gly	Glu	Tyr	Tyr	
225					230					235					240	
Lys	Ser	His	Trp	Ser	Glu	Trp	Ser	Gln	Pro	Val	Ser	Phe	Pro	Ser	Pro	
			245						250					255		
Gln	Arg	Arg	Gln	Gly	Leu	Leu	Val	Pro	Arg	Trp	Gln	Trp	Ser	Ala	Ser	
			260					265					270			
Ile	Leu	Val	Val	Val	Pro	Ile	Phe	Leu	Leu	Leu	Thr	Gly	Phe	Val	His	
		275					280					285				
Leu	Leu	Phe	Lys	Leu	Ser	Pro	Arg	Leu	Lys	Arg	Ile	Phe	Tyr	Gln	Asn	
	290					295					300					
Ile	Pro	Ser	Pro	Glu	Ala	Phe	Phe	His	Pro	Leu	Tyr	Ser	Val	Tyr	His	
305					310					315					320	
Gly	Asp	Phe	Gln	Ser	Trp	Thr	Gly	Ala	Arg	Arg	Ala	Gly	Pro	Gln	Ala	
			325						330					335		
Arg	Gln	Asn	Gly	Val	Ser	Thr	Ser	Ser	Ala	Gly	Ser	Glu	Ser	Ser	Ile	
			340					345					350			
Trp	Glu	Ala	Val	Ala	Thr	Leu	Thr	Tyr	Ser	Pro	Ala	Cys	Pro	Val	Gln	
		355					360					365				
Phe	Ala	Cys	Leu	Lys	Trp	Glu	Ala	Thr	Ala	Pro	Gly	Phe	Pro	Gly	Leu	
	370					375					380					
Pro	Gly	Ser	Glu	His	Val	Leu	Pro	Ala	Gly	Cys	Leu	Glu	Leu	Glu	Gly	
385					390					395					400	
Gln	Pro	Ser	Ala	Tyr	Leu	Pro	Gln	Glu	Asp	Trp	Ala	Pro	Leu	Gly	Ser	
			405						410					415		
Ala	Arg	Pro	Pro	Pro	Pro	Asp	Ser	Asp	Ser	Gly	Ser	Ser	Asp	Tyr	Cys	
			420					425					430			
Met	Leu	Asp	Cys	Cys	Glu	Glu	Cys	His	Leu	Ser	Ala	Phe	Pro	Gly	His	
		435					440					445				
Thr	Glu	Ser	Pro	Glu	Leu	Thr	Leu	Ala	Gln	Pro	Val	Ala	Leu	Pro	Val	
	450					455					460					
Ser	Ser	Arg	Ala													
465																